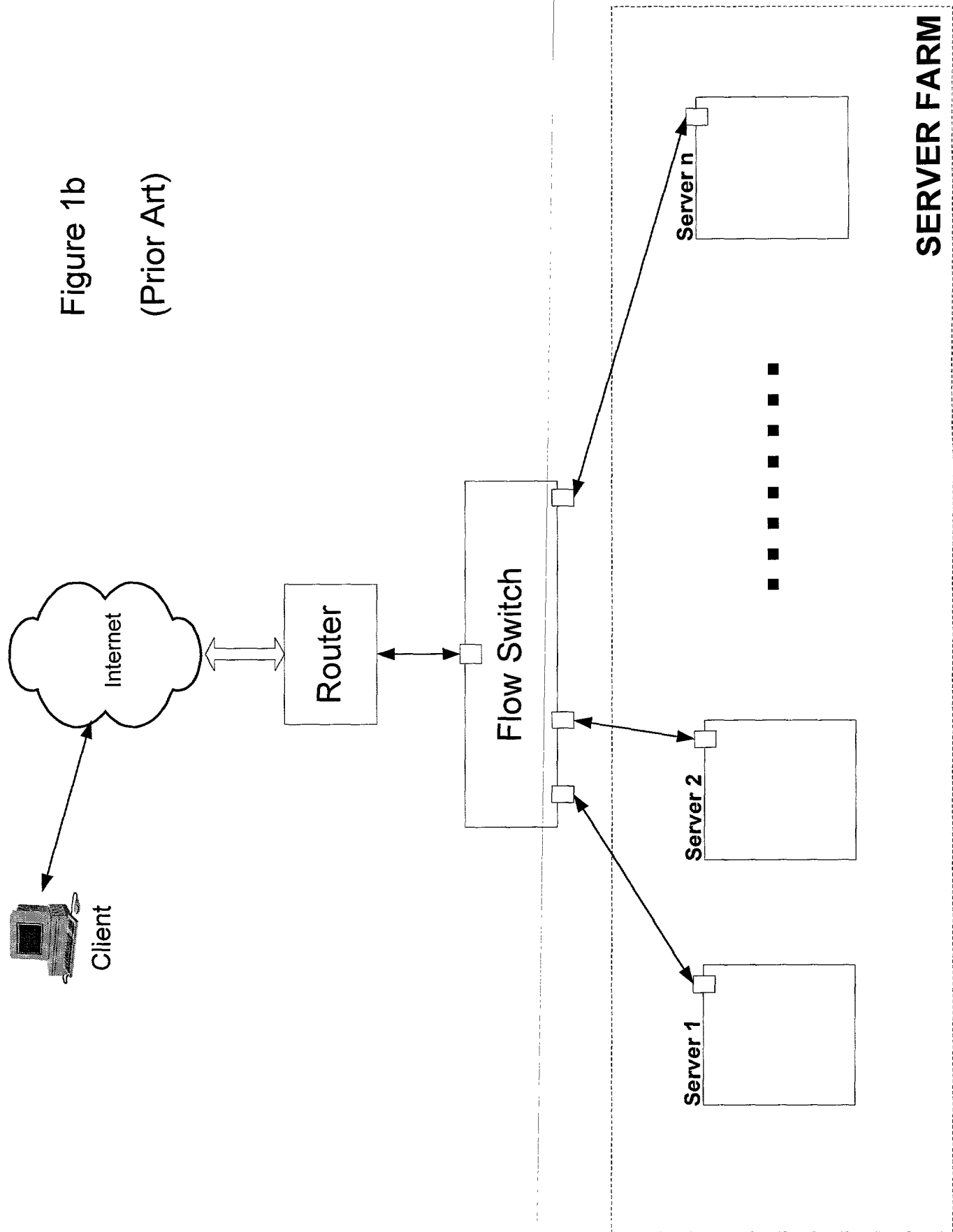


Figure 1a

Figure 1b
(Prior Art)

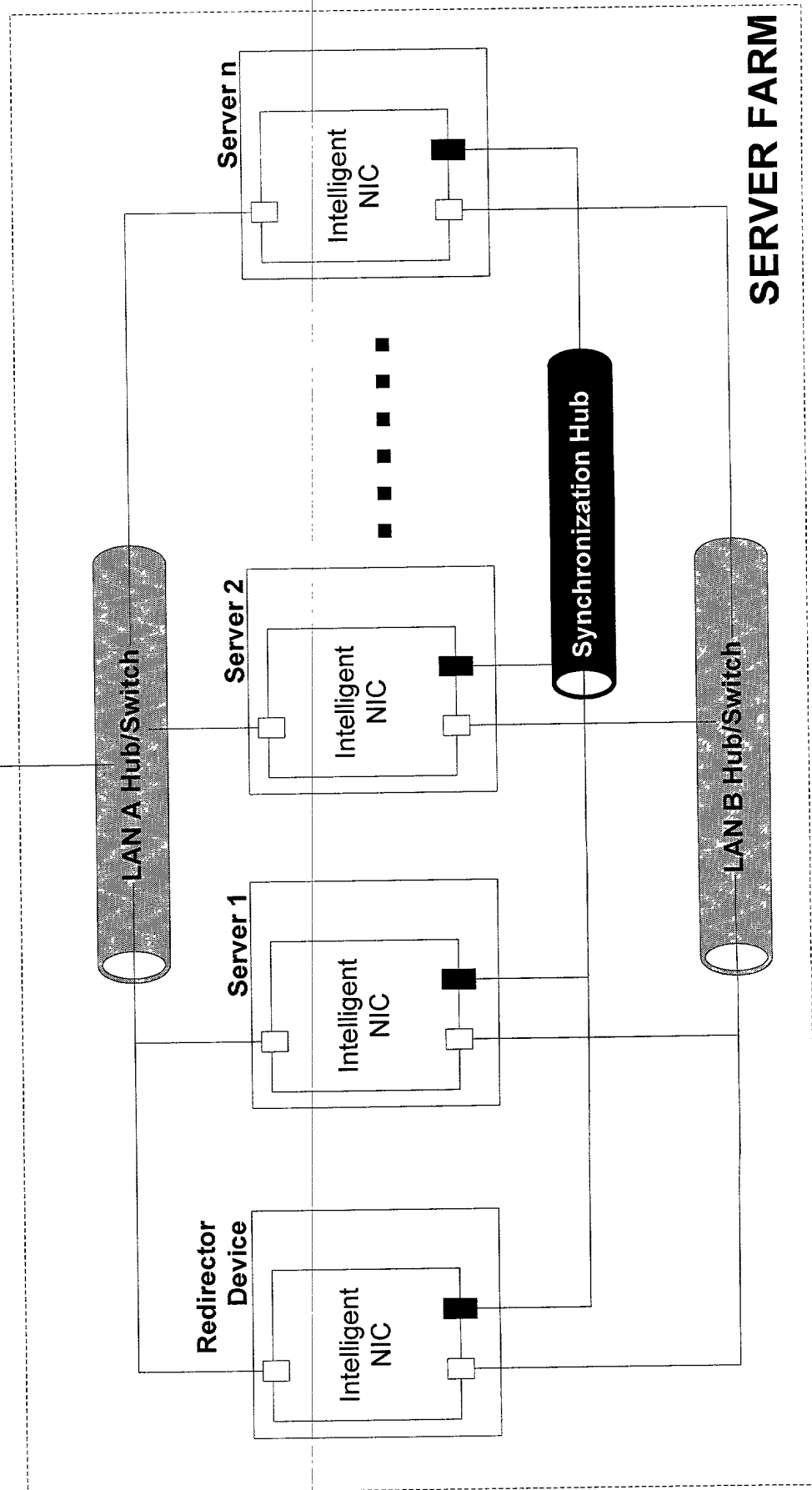
FIG. 1b



WAN Link

Router

Figure 2a



TOP SECRET

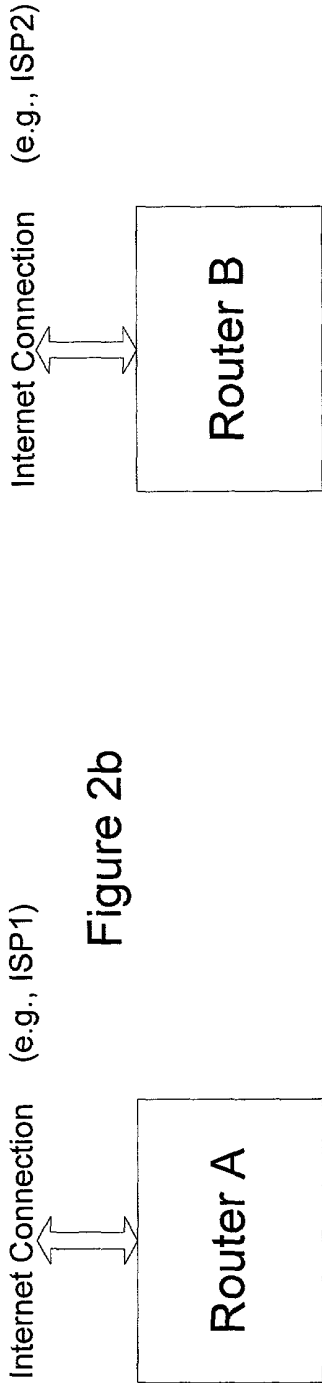
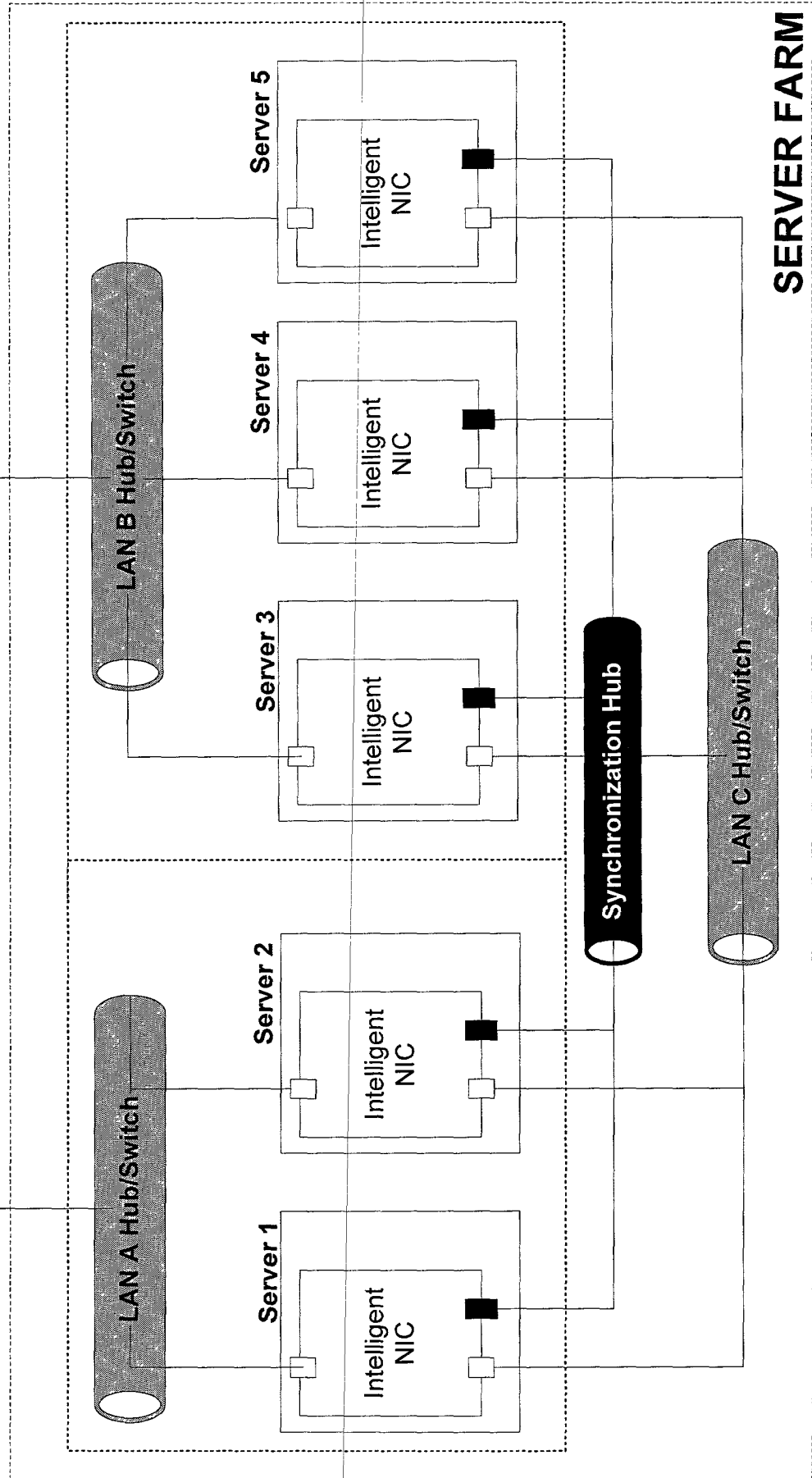


Figure 2b



FOR OFFICIAL USE ONLY

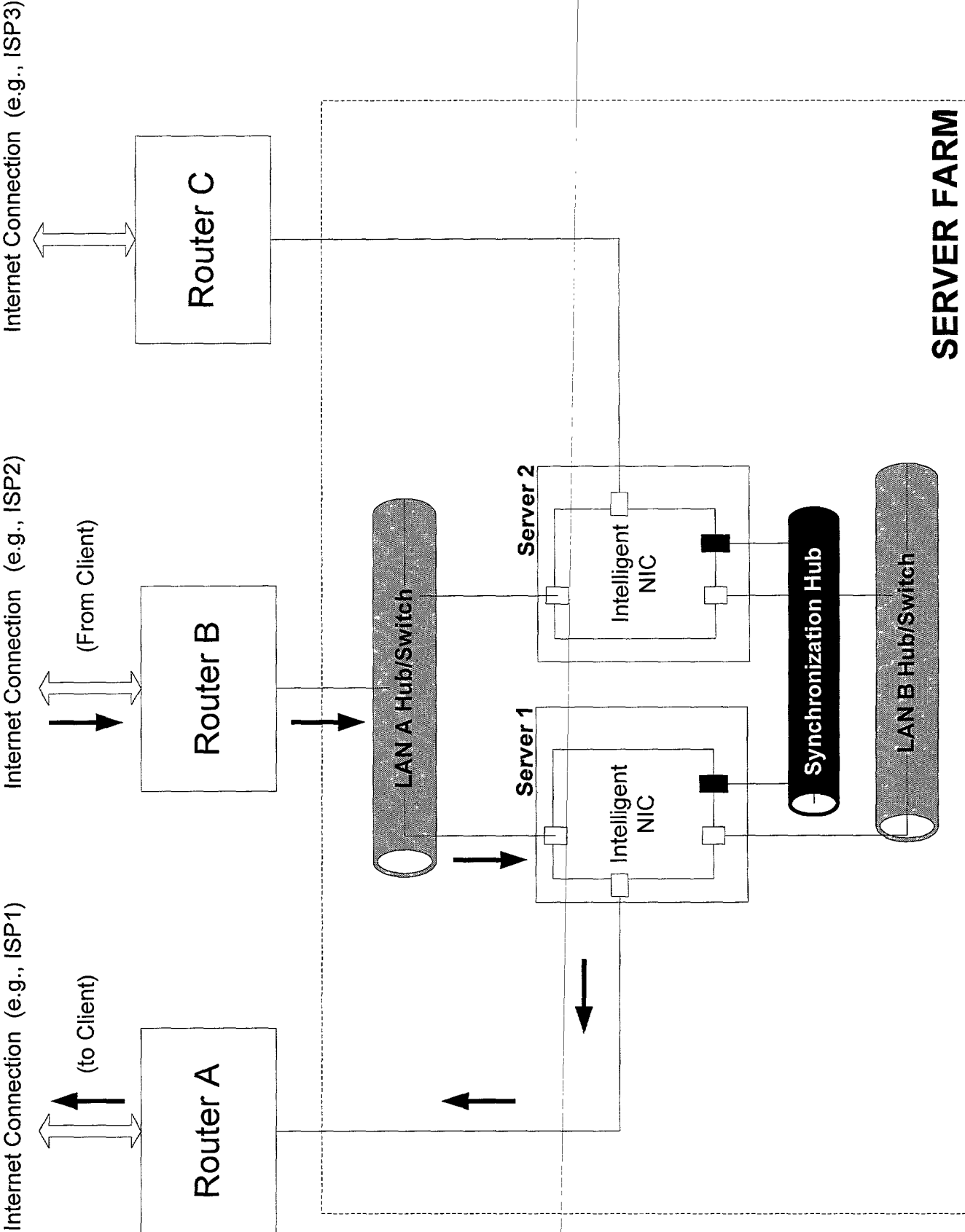
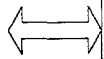


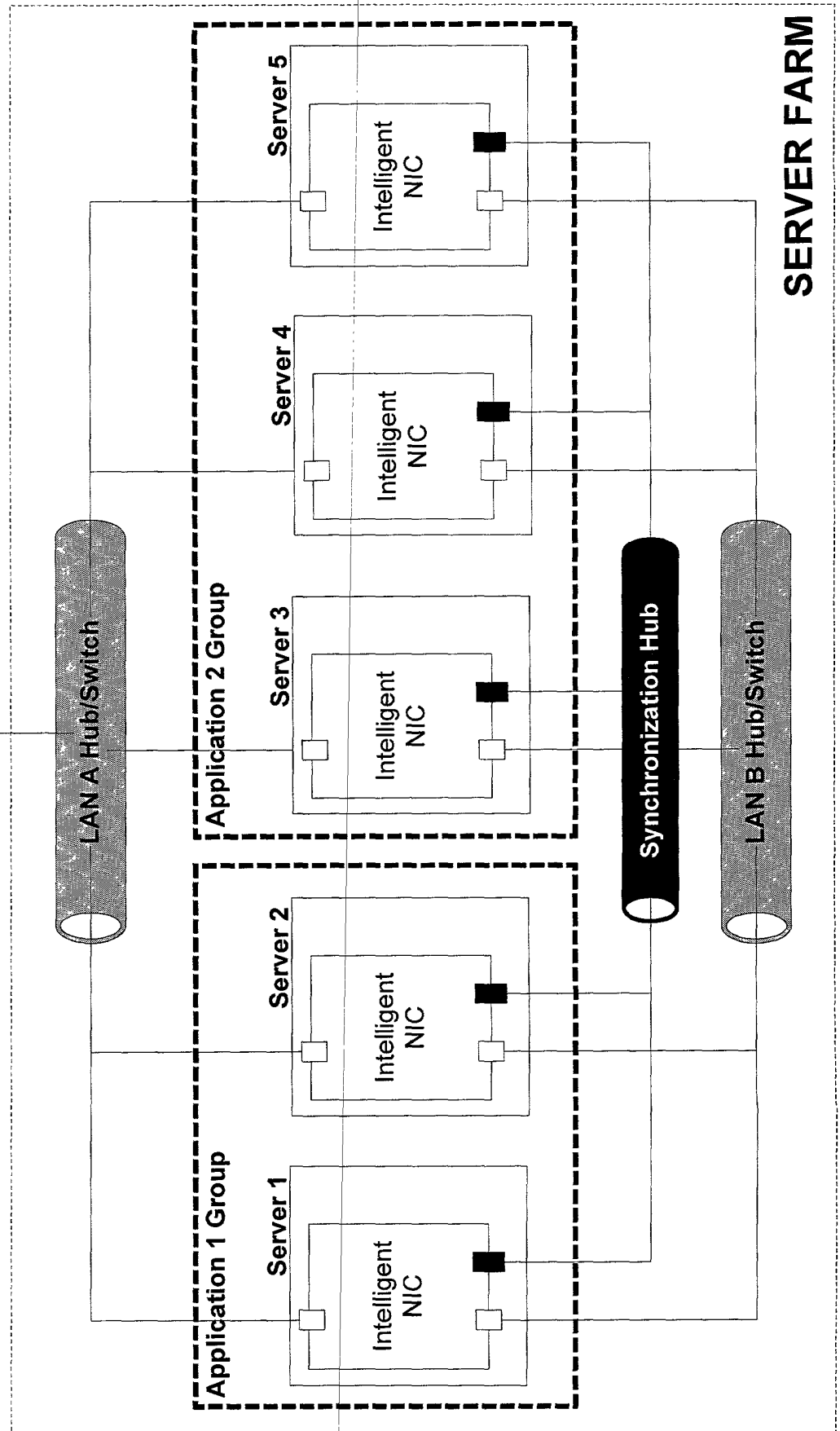
Figure 2c

Internet Connection



Router A

Figure 2d



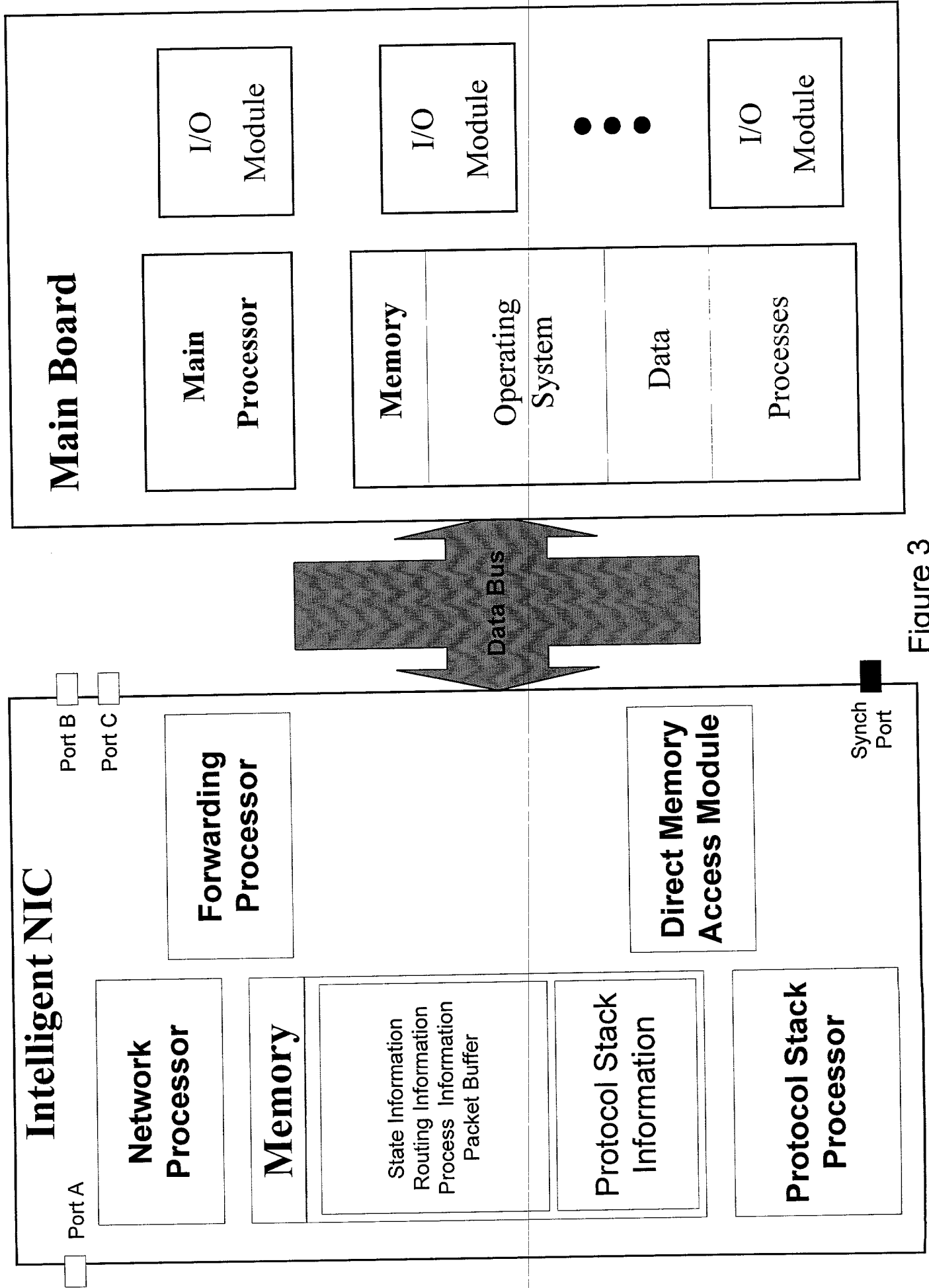


Figure 3

Internet Connection

Client Request to Server 1:
123.123.123.1

Router A

LAN A Hub/Switch

Server 1: IP 123.123.123.1

Intelligent
NIC

IP 222.222.222.1

Synchronization Hub

LAN B Hub/Switch

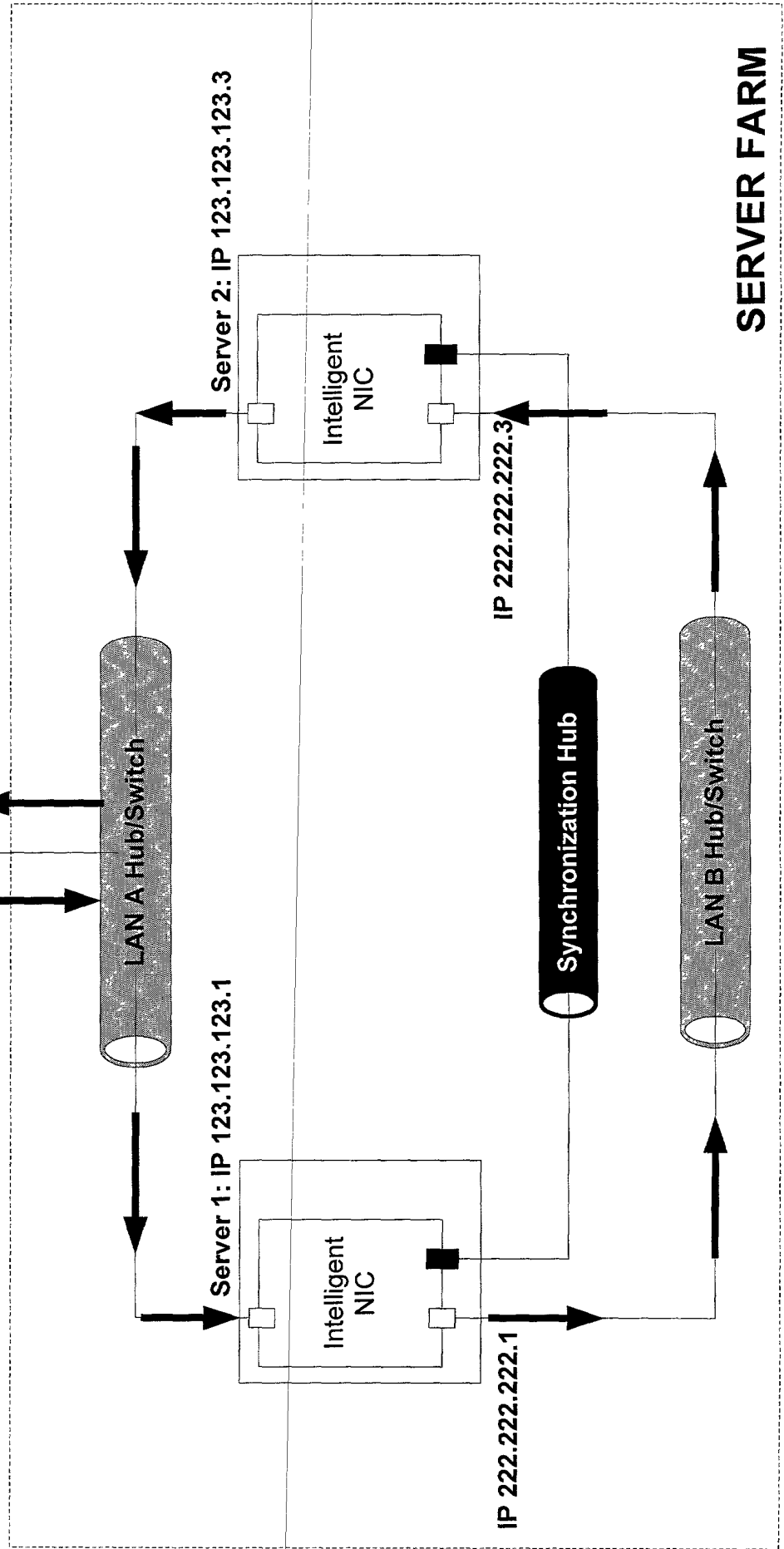
Server 2: IP 123.123.123.3

Intelligent
NIC

IP 222.222.222.3

SERVER FARM

Figure 4a



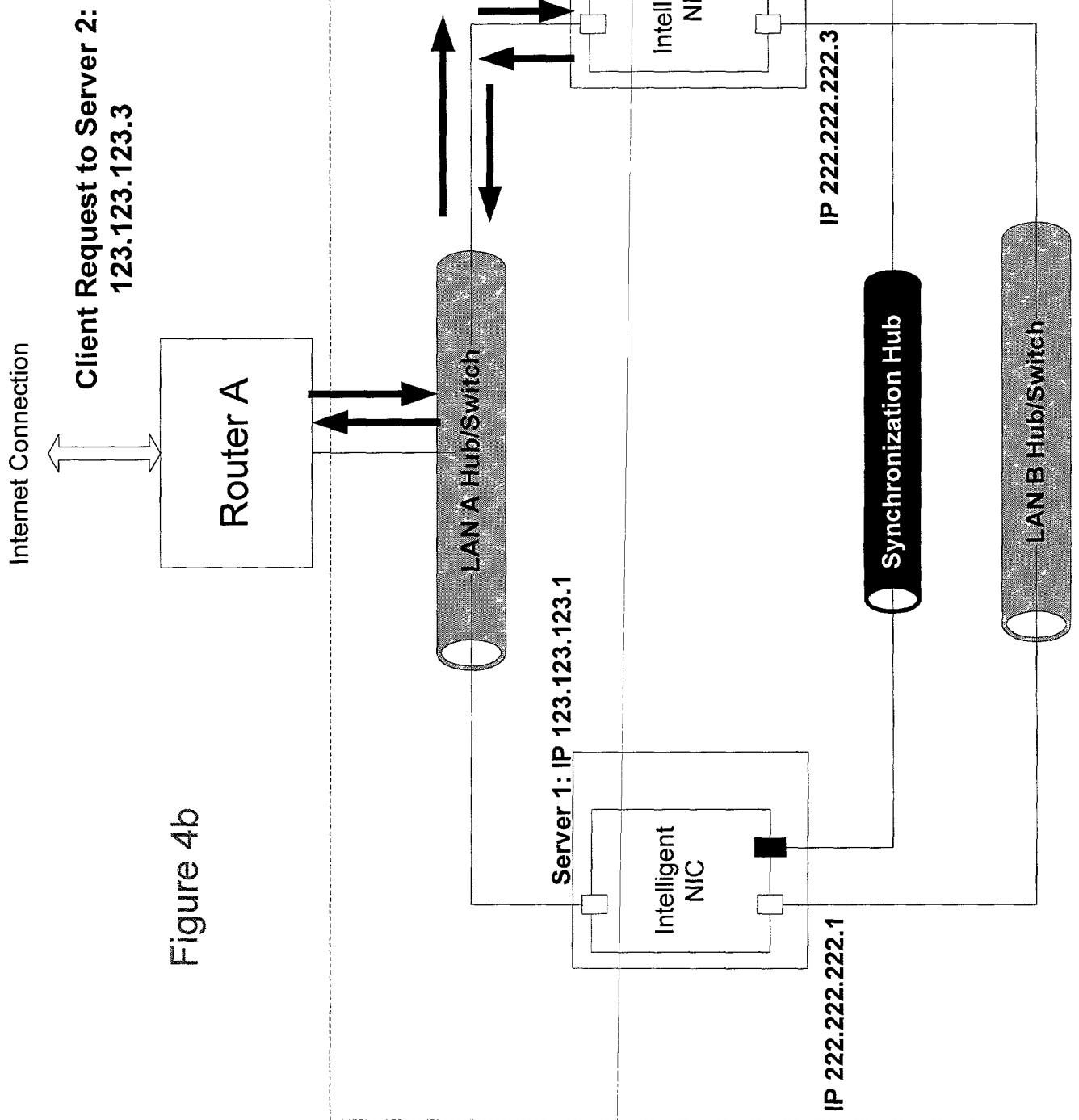
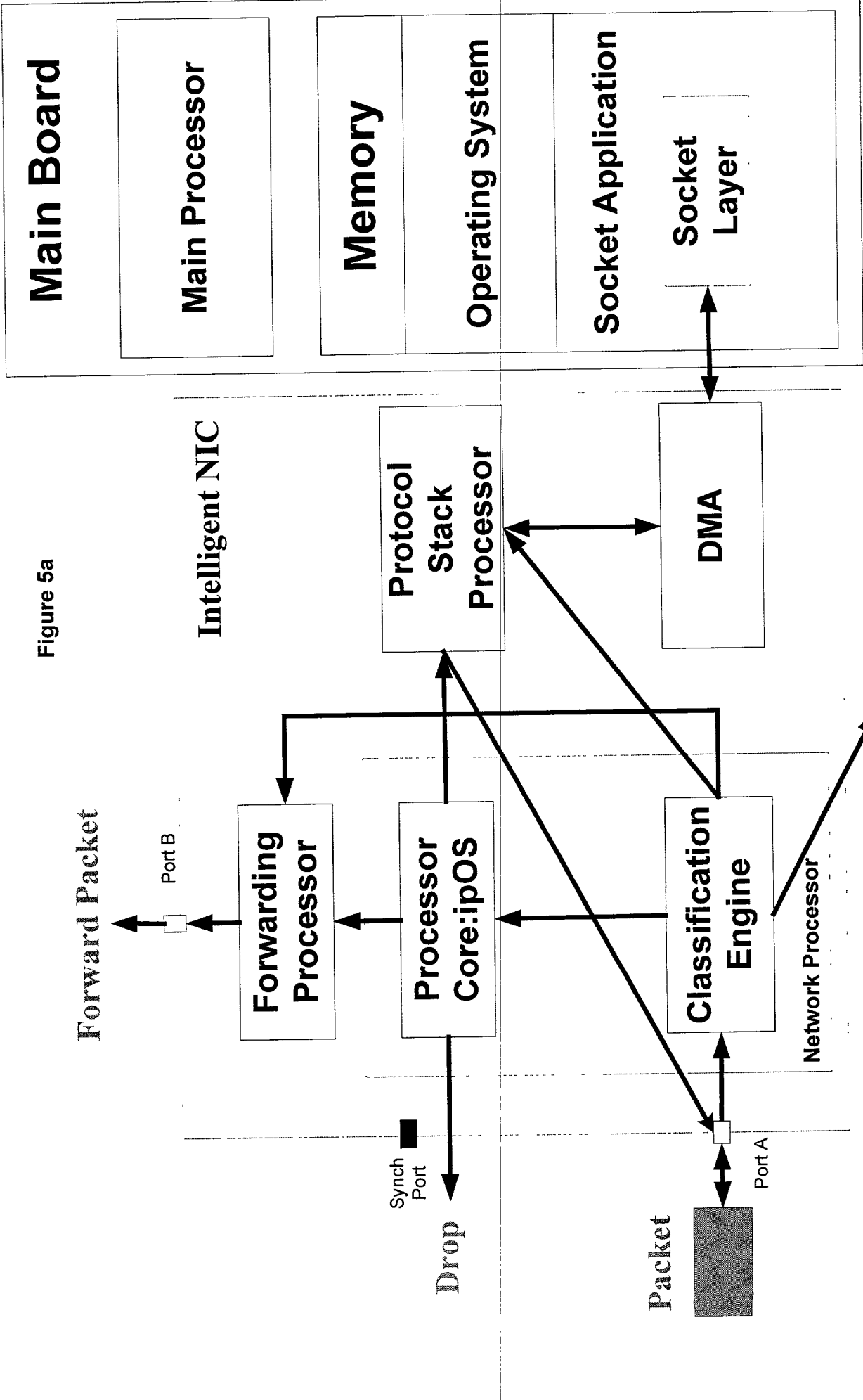
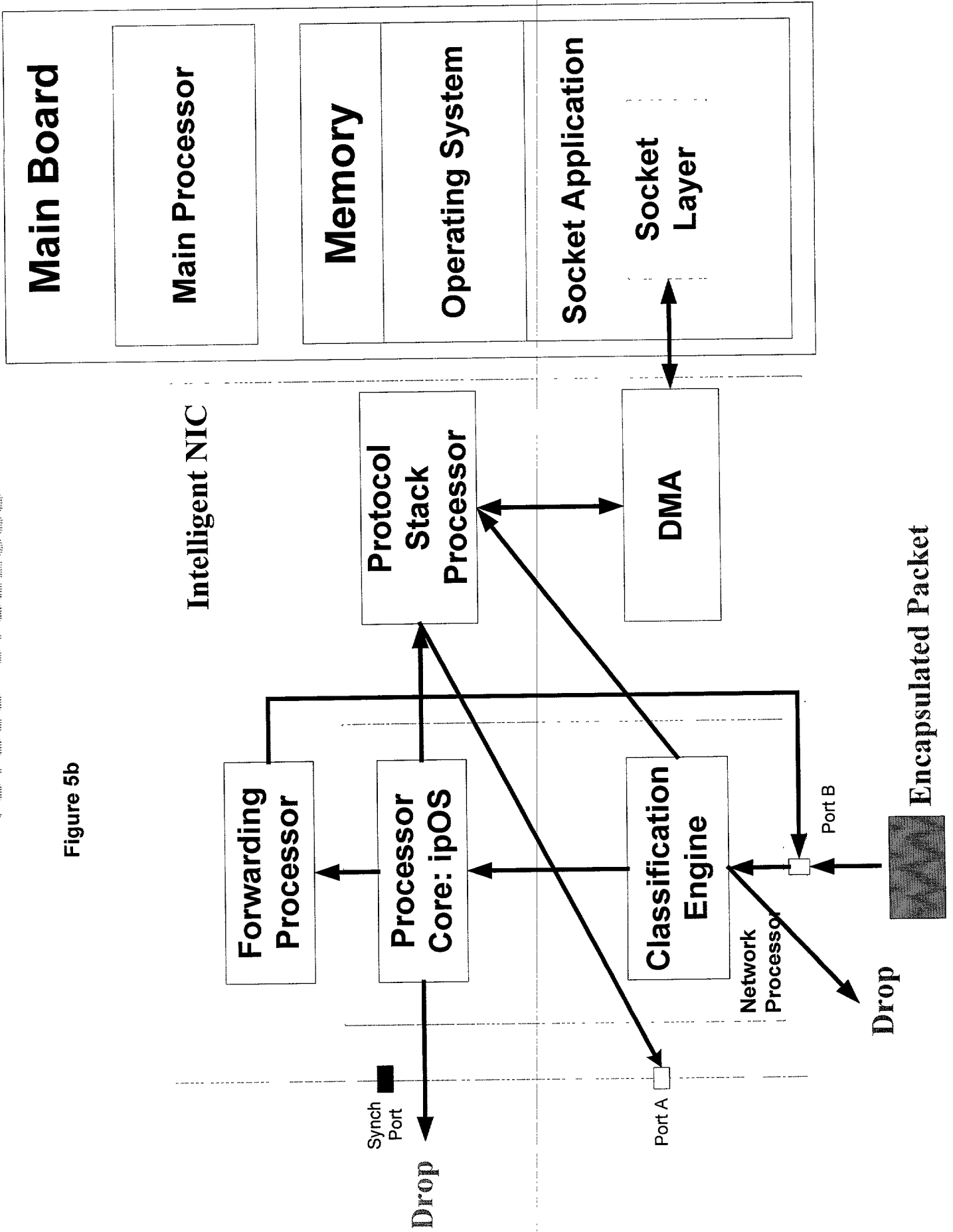


Figure 4b





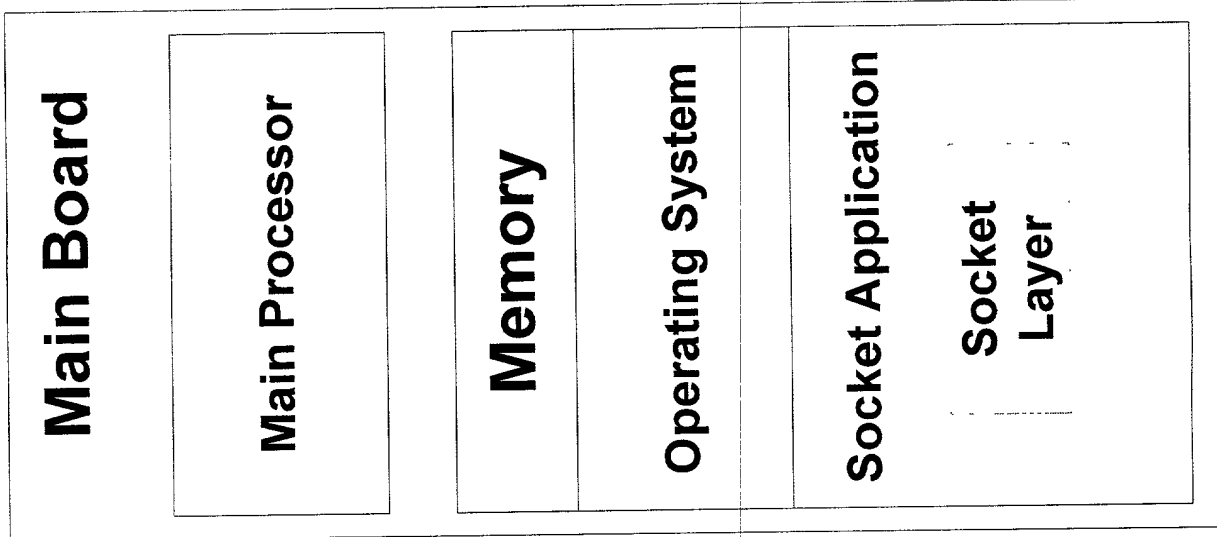
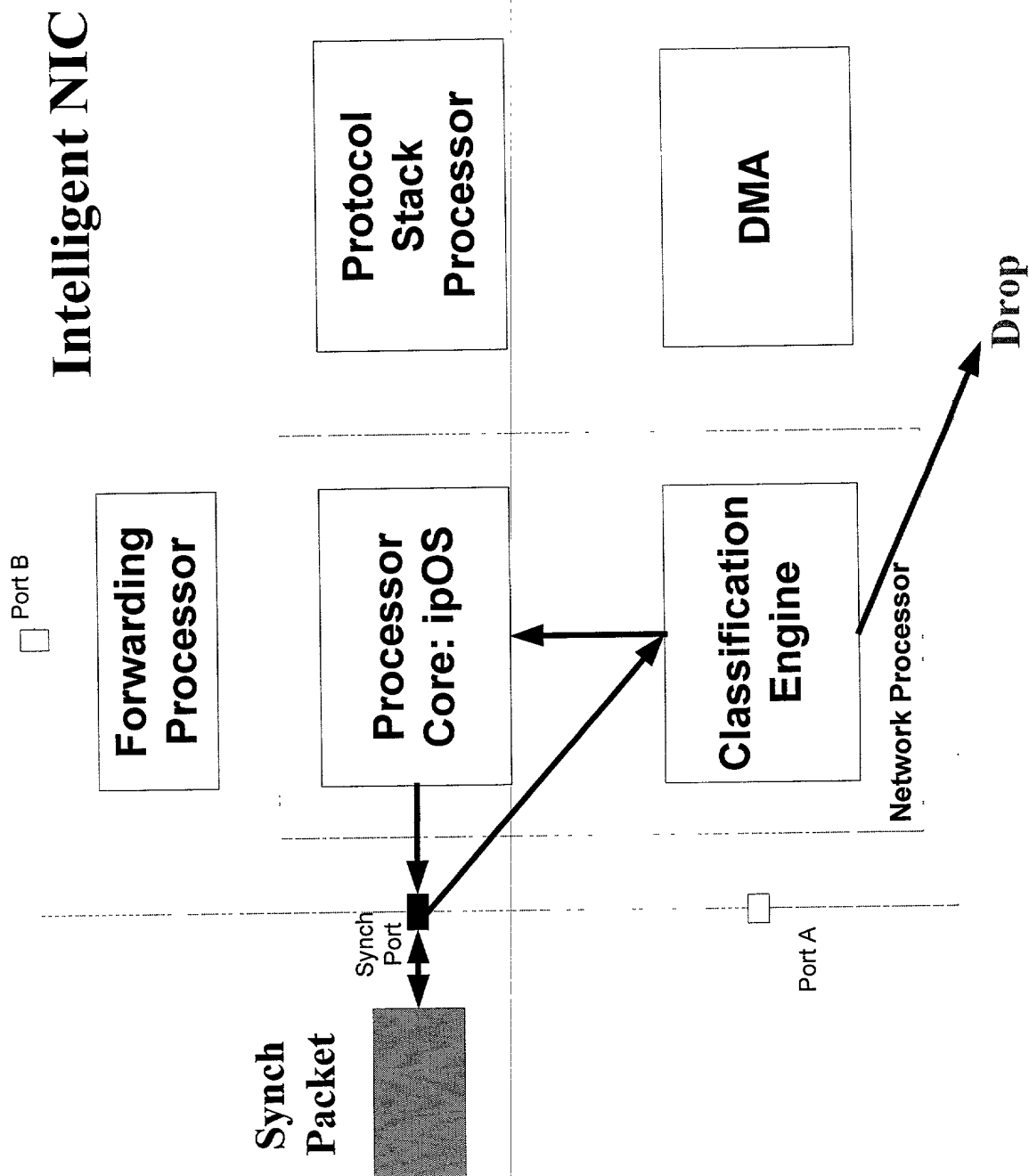


Figure 5c



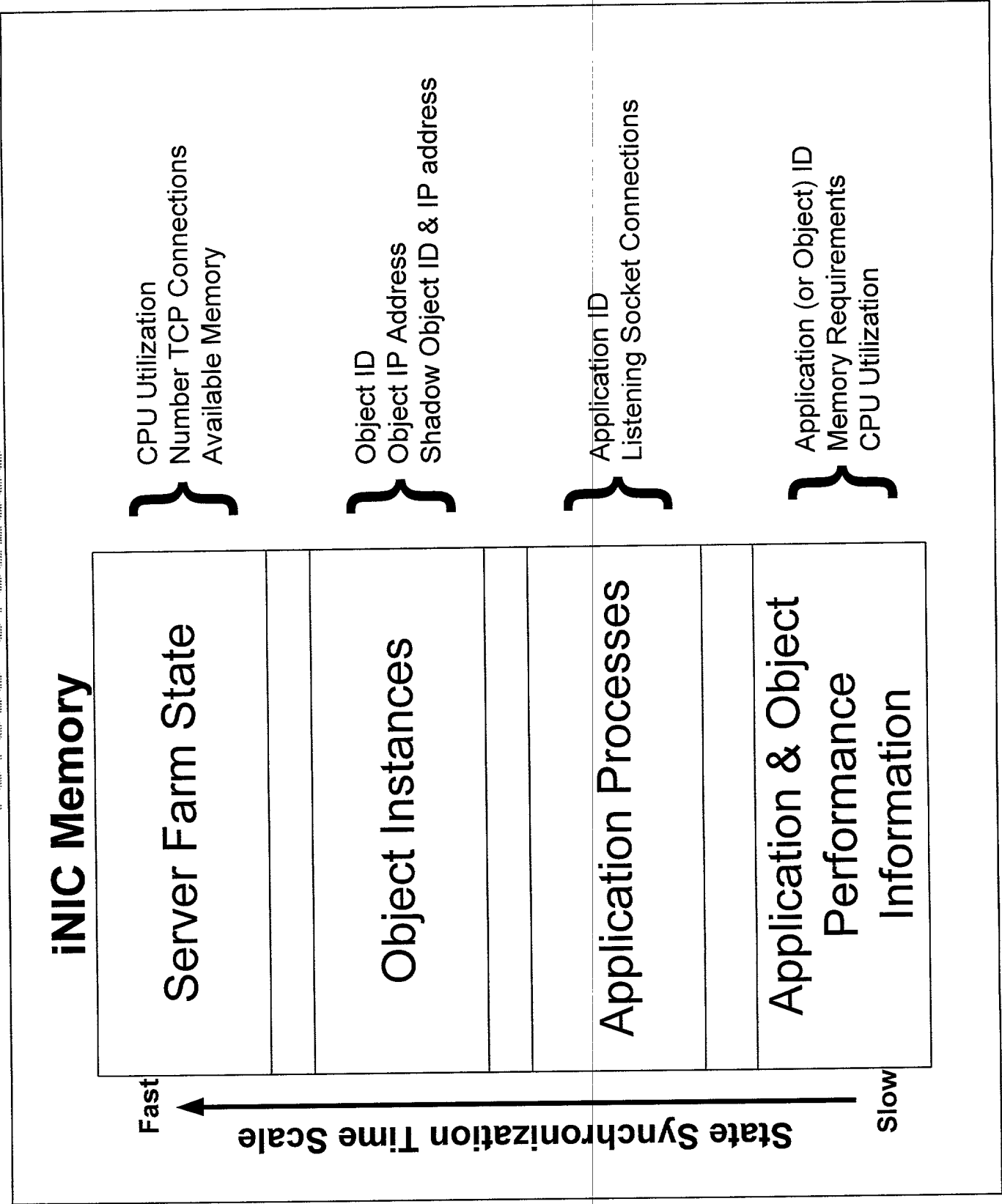
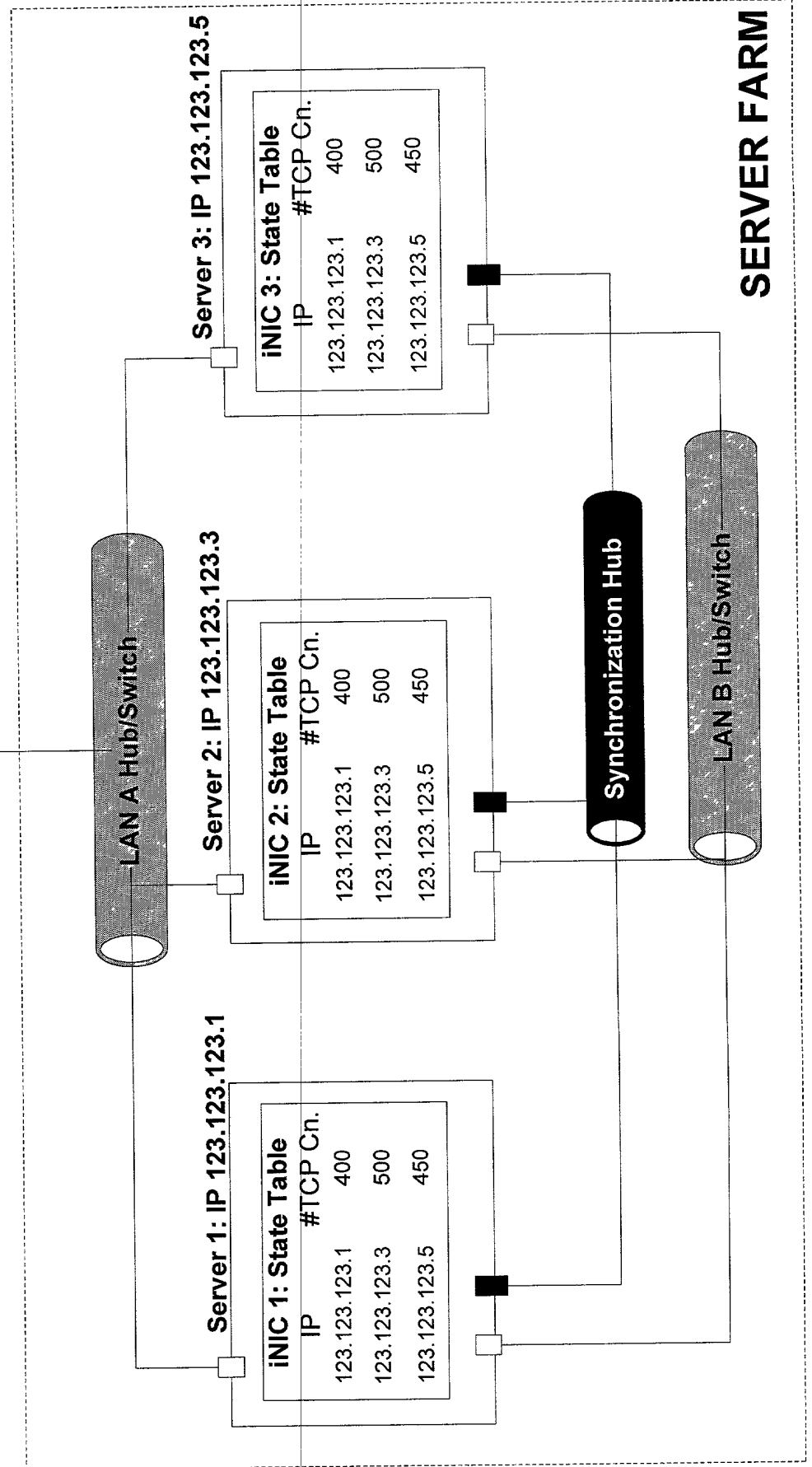


Figure 6

Internet Connection
Client Request to Server 1:
123.123.123.1

Figure 7



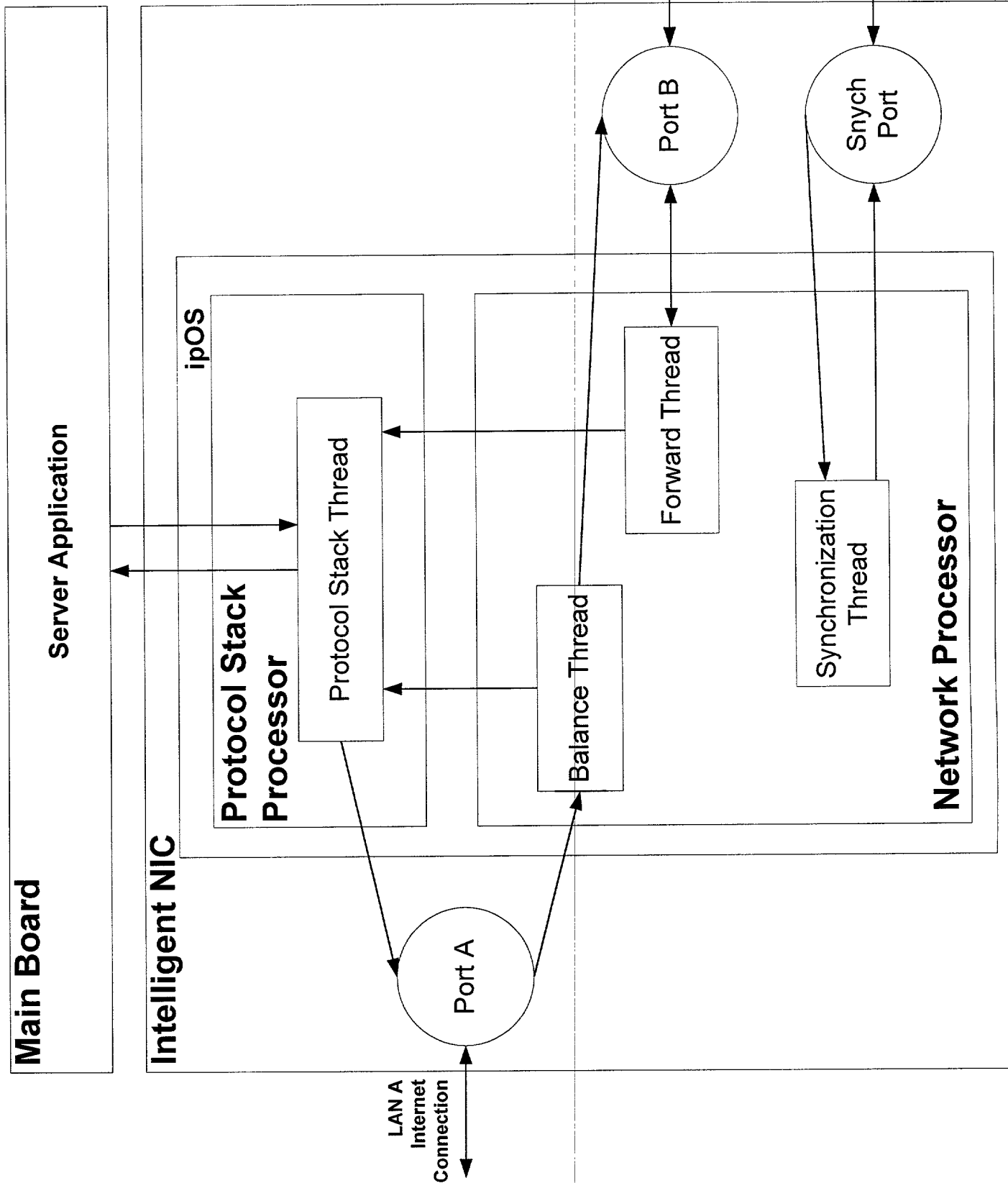


Figure 8

Figure 9a

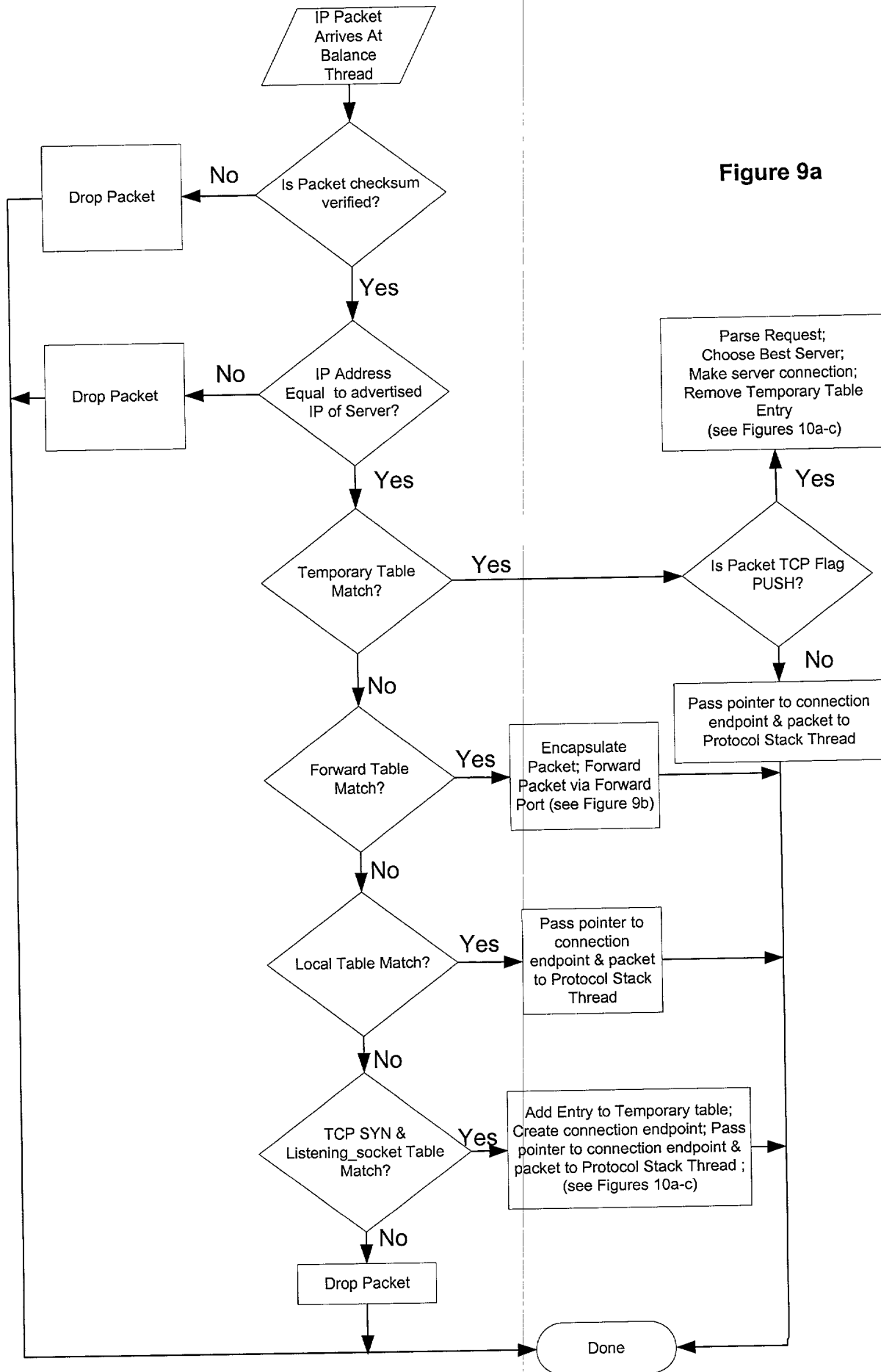


Figure 9b

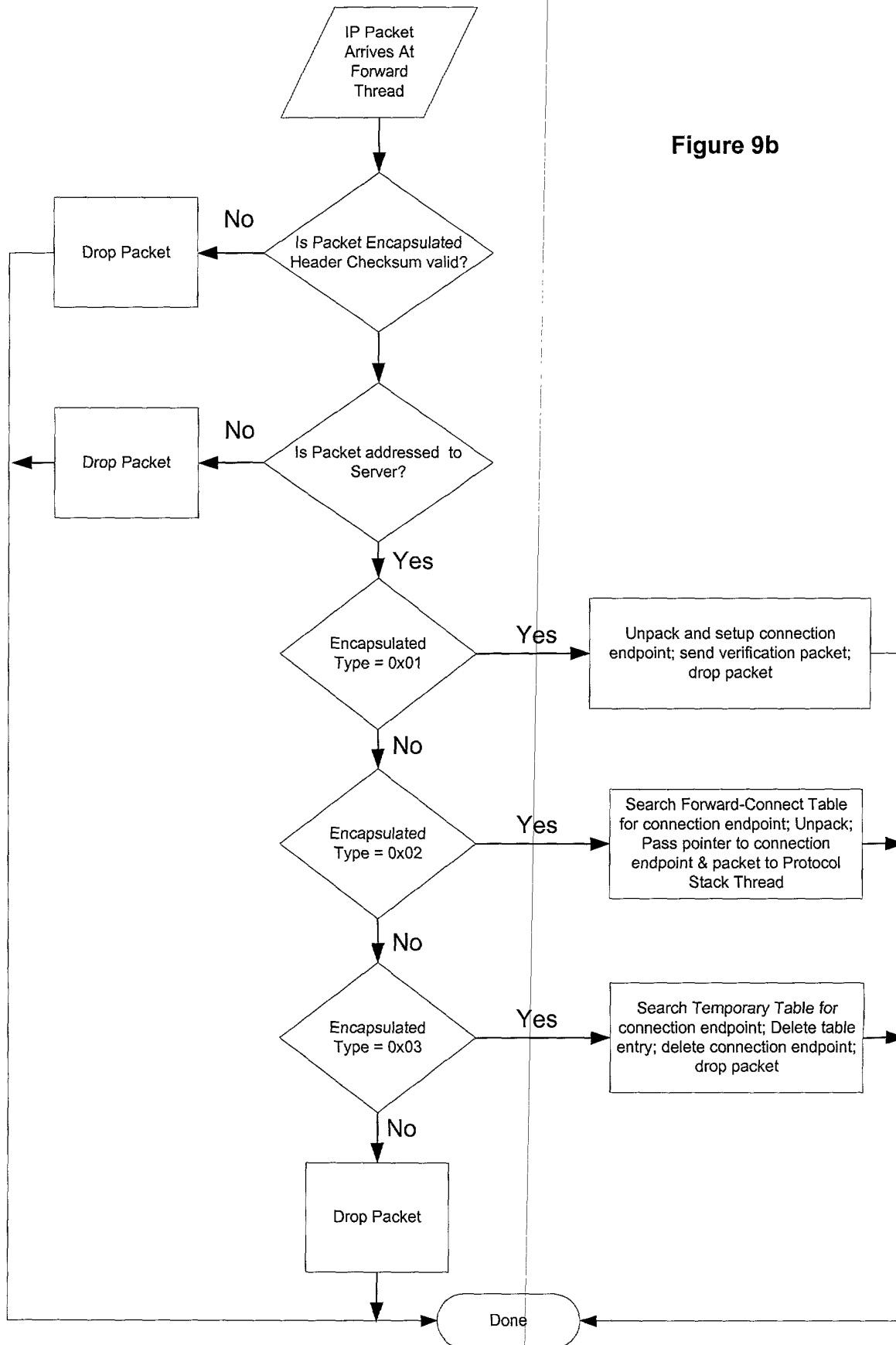
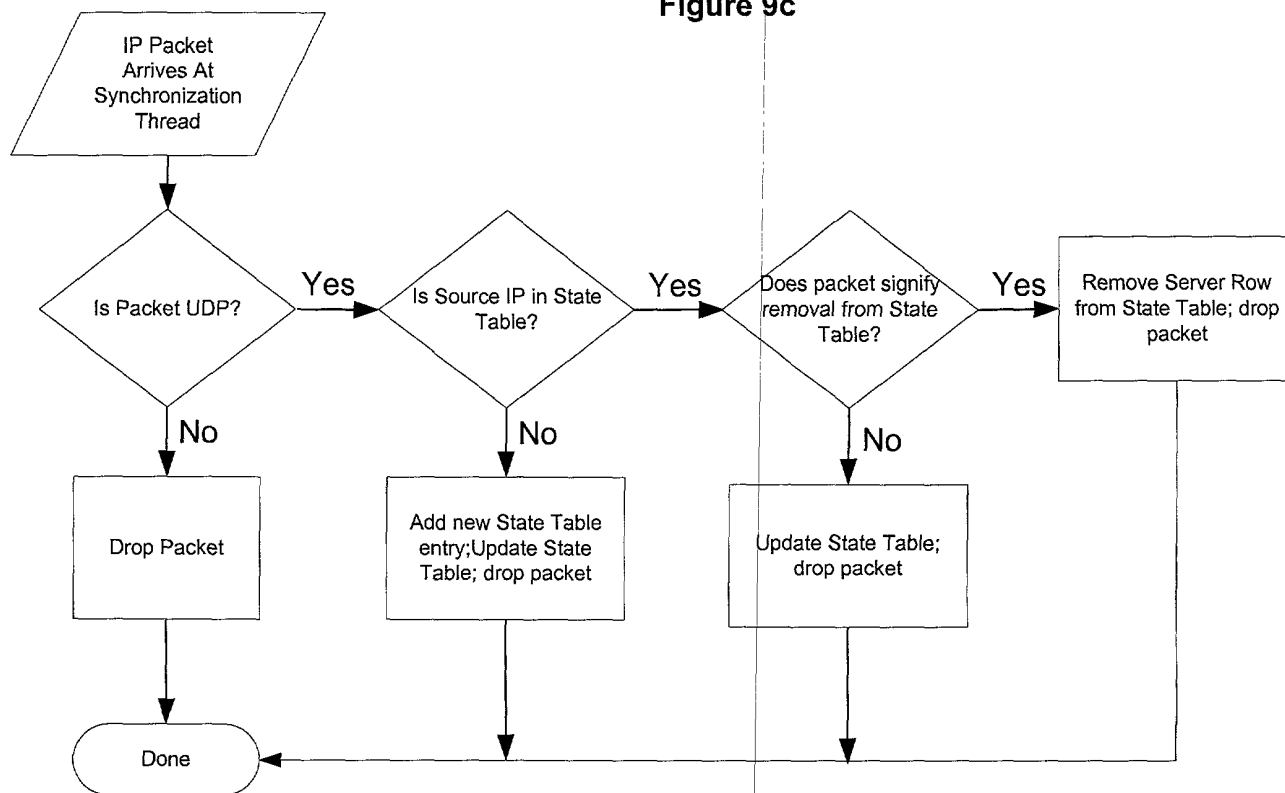
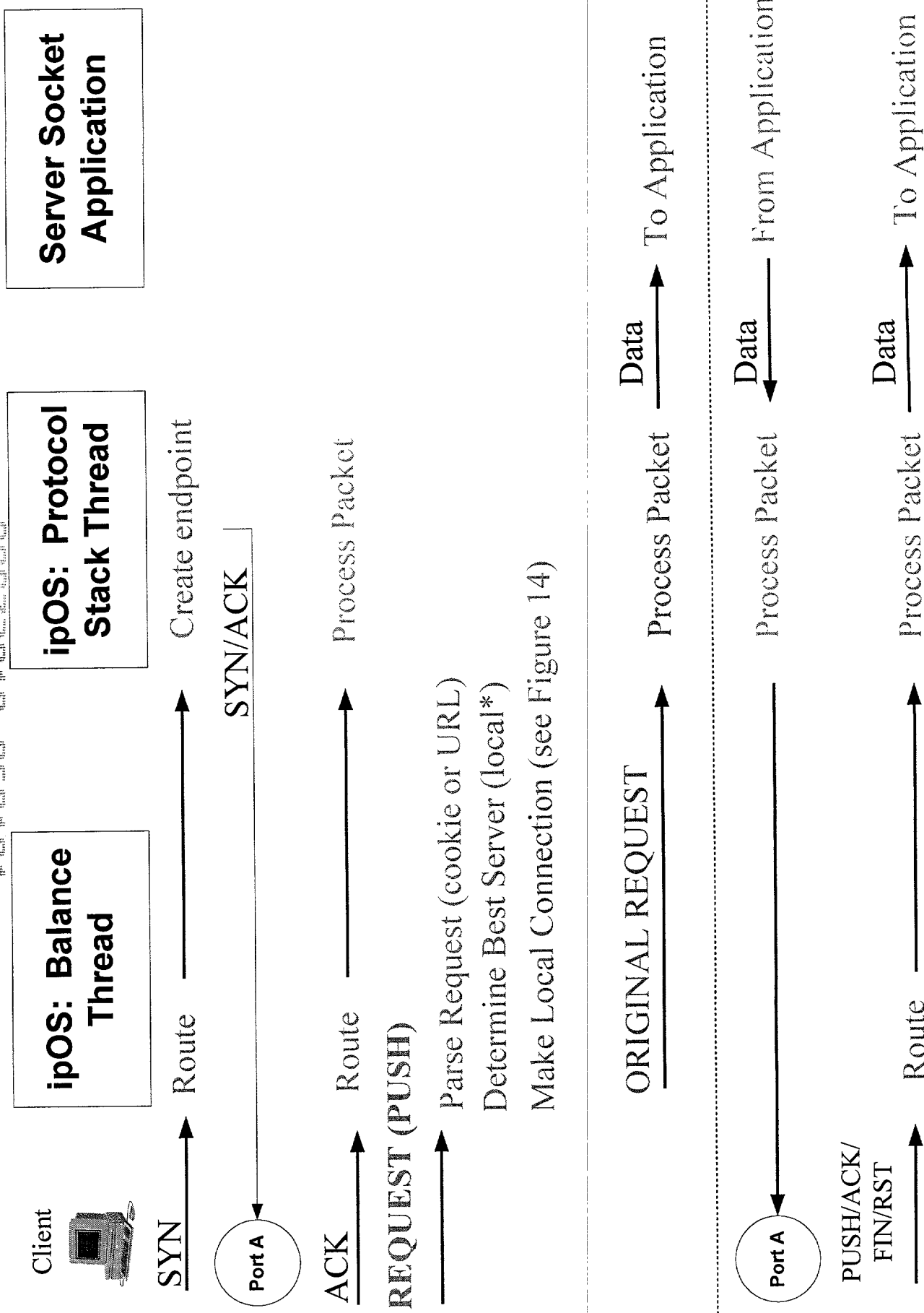


Figure 9c





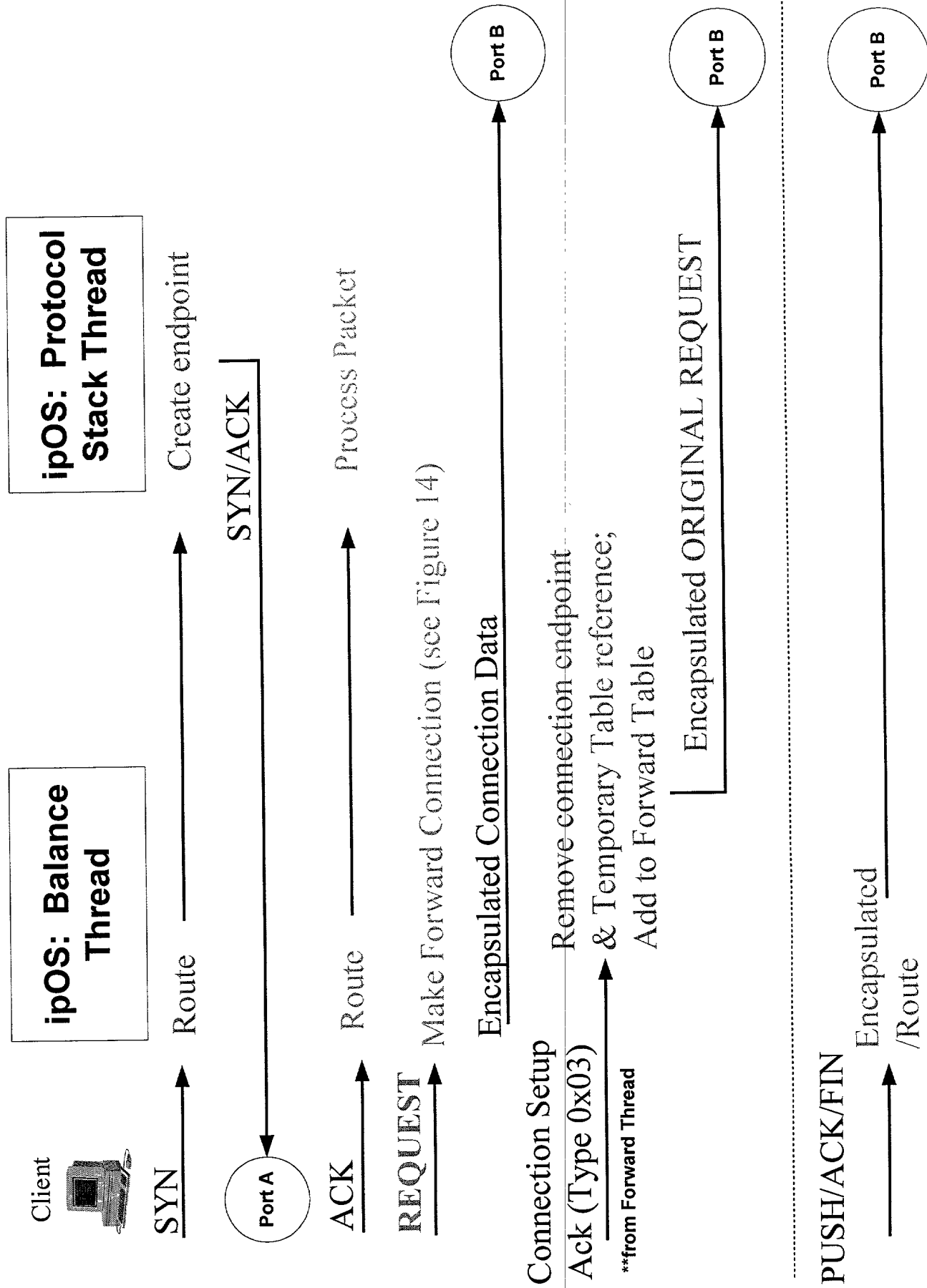


Figure 10b

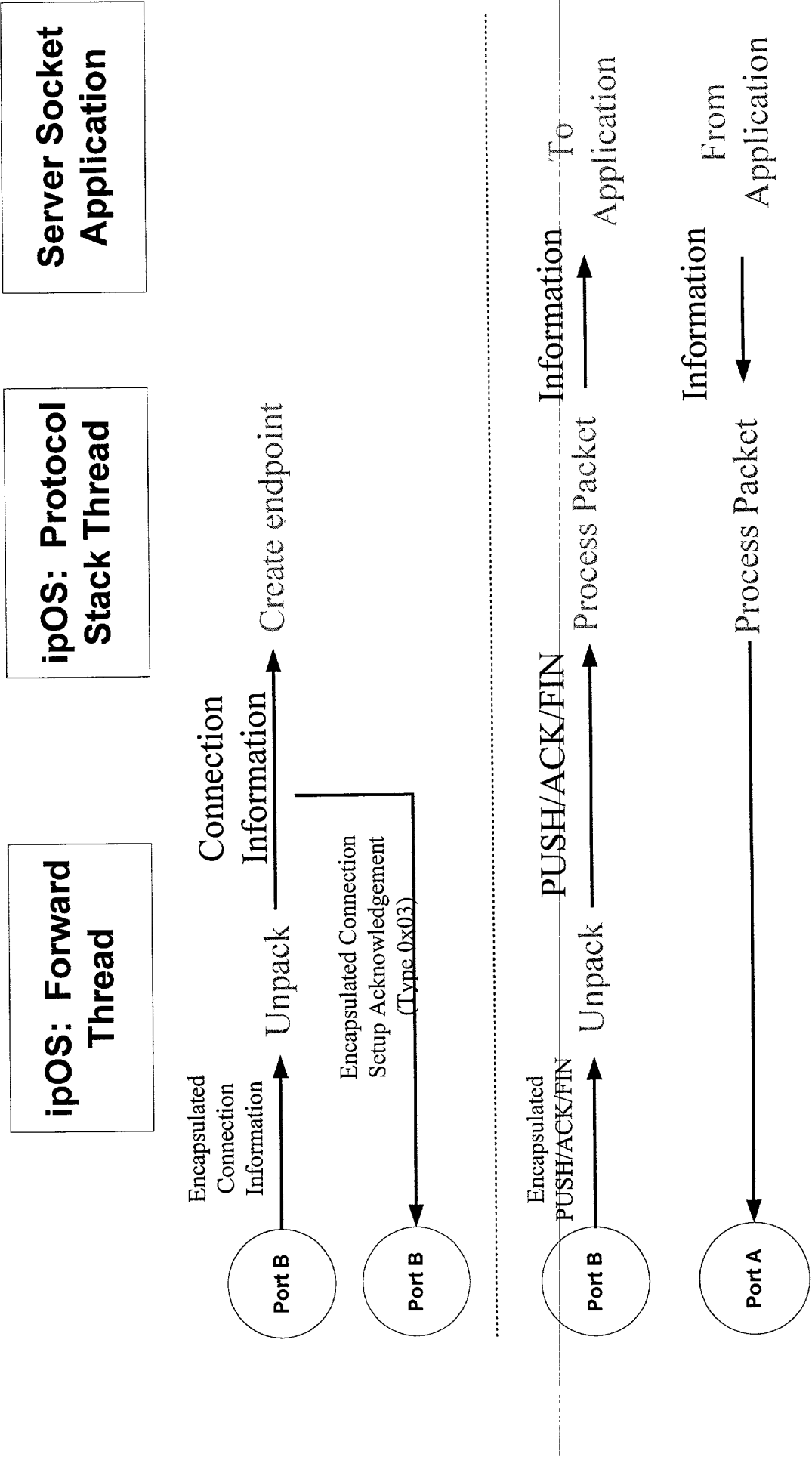


Figure 10c

Ethernet Encapsulation Header

MAC Destination Address	MAC Source Address	Type 0x007
6	6	2

Figure 11a
(Prior Art)

ipOS Encapsulation Header

Source IP	Source Port	Dest. IP	Dest. Port	Type	Protocol	Checksum
4	2	4	2	1	1	2

Figure 11b

ipOS Connection Information (UDP)

Server IP	Server Port
4	2

Figure 11c

ipOS Connection Information (TCP)

Server IP	Server Port	TCP Control Block Information
4	2	140

Figure 11d

ipOS TCP Connection Packet (Type=0x01; Protocol=0x01)

Ethernet Encap. Type =0x007	ipOS Encap. Header	TCP ipOS Connection Information
14	16	146

Figure 11e

ipOS UDP Connection Packet (Type=0x01; Protocol=0x02)

Ethernet Encap. Type =0x007	ipOS Encap. Header	UDP ipOS Connection Information
14	16	6

Figure 11f

ipOS TCP Packet (Type=0x02; Protocol=0x01)

Ethernet Encap. Type =0x007	ipOS Encap. Header	IP/TCP Packet
14	16	40 + Data

Figure 11g

ipOS UDP Packet (Type=0x02; Protocol=0x02)

Ethernet Encap. Type =0x007	ipOS Encap. Header	IP/UDP Packet
14	16	28 + Data

Figure 11h

ipOS Endpoint Migration Acknowledgement Packet (Type=0x03)

Ethernet Encap. Type =0x007	ipOS Encap. Header
14	16

Figure 11i

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Forward Table

Key	Field	Description
Yes	Source IP Address	IP address of Client
Yes	Source TCP Port	TCP Port of Client
No	Destination IP Address	IP Address to Forward
No	Destination TCP Port	TCP Port to Forward

Local/Forward-Connect/Temporary Table

KEY	Field	Description
Yes	Source IP Address	Client IP address
Yes	Source Port	Client TCP Port
Yes	Destination IP Address	Endpoint IP Address
Yes	Destination Port	Endpoint TCP Port
No	Endpoint Reference	Reference to Connection Endpoint

Server State Table

Key	Field	Description
Yes	Server IP Address	Server
No	Number TCP Connections	TCP Established Connections
No	CPU utilization	Main board CPU utilization
No	Available memory	Unused memory on Main Board
No	Available Bandwidth	Unused Bandwidth Capacity

Listening Sockets Table

Key	Field	Description
Yes	Server IP Address	Server
Yes	TCP Port	Advertised TCP Port
No	Process	Application process advertising IP/Port

Application Information Table

Key	Field	Description
Yes	Process ID	Application identification
No	Process memory requirements	Memory required to run application
No	Process CPU Utilization	Measure of application CPU utilization

URL Map Table

Key	Field	Description
Yes	URL	Universal Resource Locator
Yes	Server IP Address	IP address of associated server

Cookie Map Table

Key	Field	Description
Yes	Cookie ID	Cookie Identification tag
No	Server IP Address	IP address of associated server

Figure 12

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TOP SECRET

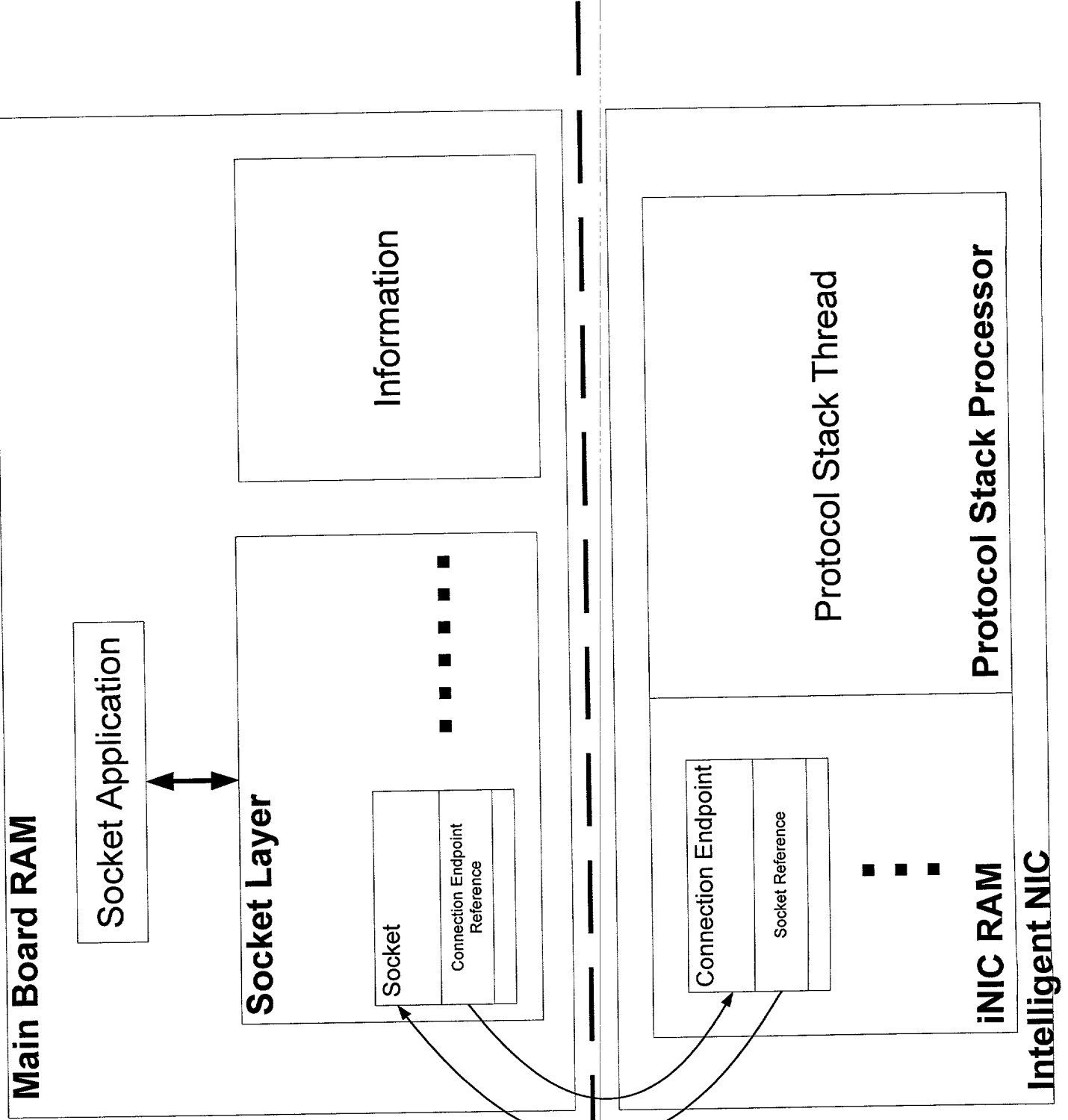


Figure 13

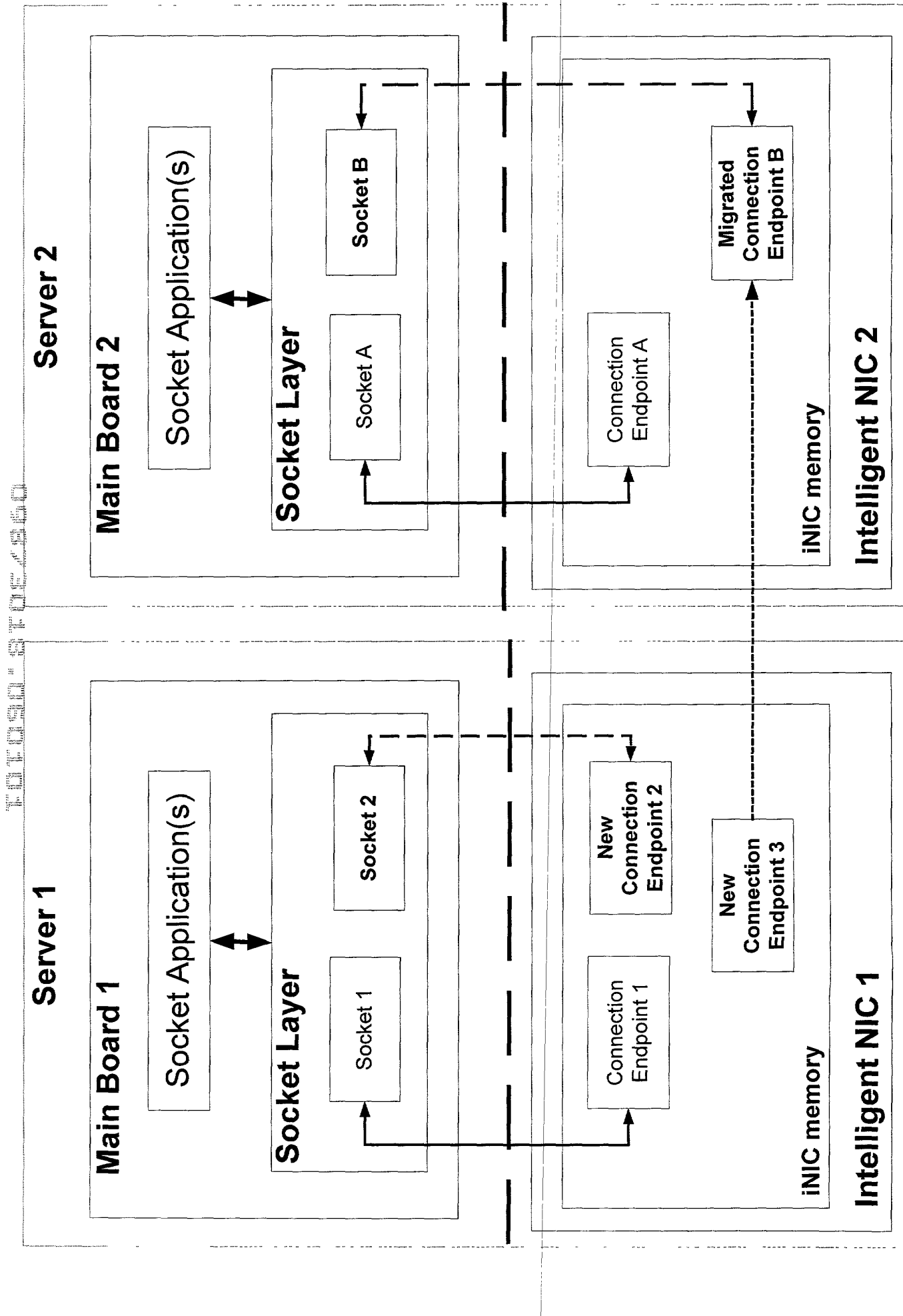


Figure 14



Figure 15

Figure 16

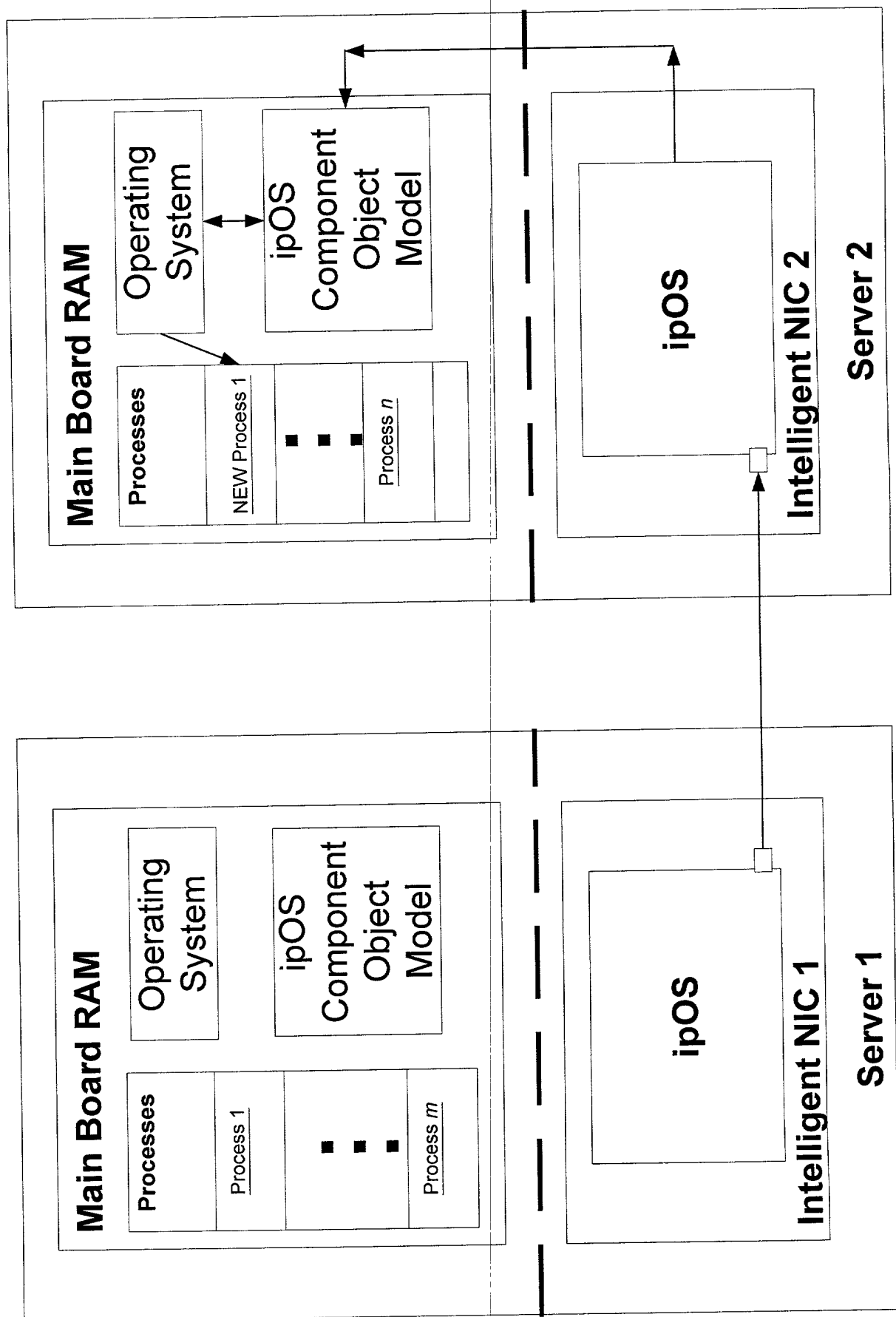


Figure 17

